



California Agriculture Updates
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A 3-D Vision of Our Energy Future

Earlier this month, I attended the national conference of the [25x'25 Initiative](#) in Omaha, Nebraska. The 25x25 Initiative is endorsed by President Bush, Congress, [Governor Schwarzenegger](#) and 27 other governors, the California Legislature and hundreds of other groups around the country. The goal of producing 25 percent of our nation's energy needs with a sustainable portfolio of [renewable fuels](#) (solar, wind, geothermal, biomass and hydroelectric) by the year 2025 would help generate \$700 billion annually in domestic revenues. These are dollars that would stay in the U.S. economy and not be paid to foreign countries for fossil fuels!



I was thrilled to introduce [Dr. Steve Chu](#), winner of the 1997 Nobel Prize in Physics and director of the Lawrence Berkeley National Laboratory, who spoke to our

group and described some of the exciting advances in bio-energy research that his team is conducting. He told us that one of his goals is to encourage many of the world's best and brightest scientists to turn their attention to developing a disciplined approach to the challenges of climate change.

On March 4th, I was equally honored to officially turn on the valve of California's first "cow power" project at Vintage Dairy in Fresno County. I was there along with James Boyd, vice chair of the [California Energy Commission](#) and chair of the Governor's [BioEnergy Interagency Working Group](#). We were pleased to represent the Governor and witness the conversion of biogas from this 5,000-cow dairy into commercial grade, renewable natural gas that is pumped into PG&E's pipeline. [PG&E](#) will use the natural gas to deliver renewable electricity to its customers in central and northern California. This landmark initiative will help power 1,200 homes each day and, at the same time, reduce the dairy's methane emissions.

California is home to nearly 1.8 million dairy cows, each producing an average of 120 pounds of manure a day. Turning this environmental challenge into an opportunity is David Albers, partner in Vintage Dairy and president of [BioEnergy Solutions](#). This first for California is clearly a win for our environment, energy consumers and dairy farmers.

The Schwarzenegger administration wants California to be the world leader in creating a dynamic



StartUp Ceremony:
(L-R) Roy Kuga, Vice President, Energy Supply, PG&E; James Boyd, Vice Chair, California Energy Commission; A.G. Kawamura, CDFA Secretary; and David Albers, President of BioEnergy Solutions and partner in Vintage Dairy.

portfolio of renewable energy systems within the state that will allow it to achieve energy independence in our lifetime. California's incredibly diverse biological, geographical and climatological resource bases, coupled with the intellectual and innovative power found within our University of California and California State University systems, creates the perfect platform for entrepreneurs to invest capital in applied science solutions. If we are determined, we can build upon a solid foundation of infrastructure fundamentals that will allow us to take the technologies of the day and build a modern, sustainable 21st century society.

California is already the nation's most energy efficient state and has been a pioneer in many energy conversion technologies: wind, geothermal, manure digestion, algae to bio-diesel conversion, desert sugar cane production, hydrogen standards, solar photovoltaic cell and reflector development, ocean thermal and tidal applications, cogeneration of forest byproducts, waste management projects (landfill and sewage sludge biogas collection) and mini-hydroelectric systems.

The sound principles behind a diverse and well-coordinated 21st century energy system have economic, security and strategic regional benefits that could catapult California to an entirely new level of productivity. If abundant, dependable and affordable energy is the key to enabling other maturing, new century technologies such as desalination and the hydrogen highway, then we must grasp these opportunities. The potential of California's alternative energy resources to play a huge role in moving the global community forward in a sustainable way can only be realized if we open our eyes to the possibilities of technological convergence.

Our vision must be 3-D: dynamic, disciplined and determined. As we begin to understand the challenges of [climate change](#), we must know that the status quo won't get us to where we need to go for a better future.

As always, thank you for your support. Feel free to contact my office with any questions or concerns.

A.G. Kawamura

Secretary, California Department of Food and Agriculture
1220 N Street, Sacramento, CA 95814
916.654.0433

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